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ABSTRACT

In a follow-up study of secondary school students who completed vocational education programs in the Roanoke City Public Schools during the 1975-76 school year, students and their employers were asked to rate the effectiveness of the vocational instructional programs in relation to twelve aspects of employment. Questionnaires were sent to 381 students and 59 employers; 51% of the students and 68% of the employers responded. Findings were that 59% of the students employed were full-time employees in fields directly related to their secondary studies, and 70% of the students rated the vocational education instructional program above average. A highlight of the findings was that 31% of the vocational education graduates were now enrolled full time (6% part-time) in postsecondary programs, with 59% of them enrolled in programs directly related to their secondary vocational education studies. Seventy-seven percent of the employers rated the vocational education instructional program above average. A long-range (five-year) study is recommended using the present study as a basic building block. (Author/BL)

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FINAL REPORT

A FOLLOW-UP OF FORMER VOCATIONAL STUDENTS FROM THE ROANOKE CITY PUBLIC SCHOOLS 1975-76

Conducted Under
Part C of Public Law 90-576

Lloyd W. Enoch
Principal Investigator

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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ROANOKE CITY PUBLIC SCHOOLS

Department of Vocational and Adult Education
Roanoke City Public Schools
Roanoke, Virginia

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CHAPTER I

Introduction

A. The Problem

No exact data has been available to local school officials, employers, parents, and students in regard to the kind of occupational or post-secondary education programs which are being followed by persons who completed a vocational education program in high school. Statistics have been available on a statewide basis, but not for the Roanoke City Public Schools.

The questions which arise are related to how many former students who have completed a vocational education program are employed in the field for which they were trained in high school. Similarly, questions are asked regarding the number of students who completed a vocational education program and have gone on to study at a post-secondary institution. Also, how many of those students are studying in fields related to their high school vocational program.

Another facet of the problem is related to the degree of satisfaction of former students and their employers with the program of study for vocational education. Is the curriculum up-to-date and practical in nature? Are students well prepared for employment and/or post-secondary education in their chosen vocation?

Data is needed at the local level to answer these and other relevant questions related to the effectiveness of vocational education. It is felt that a follow-up study for one year will not provide enough information on which to determine this issue. Therefore, a part of the five year plan for the improvement of the vocational education program for the Roanoke City

Public Schools calls for a follow-up study each year for a five year period beginning with students who completed vocational programs in the 1975-76 school year. This report is the first in that series.

B. Objectives of this Study

Specifically stated, there are six objectives of this study. They are to:

1. Determine the degree of satisfaction of former students with the knowledge and skills gained as a result of enrollment in a vocational education program in the Roanoke City Public Schools.
2. Determine the degree of satisfaction that employers have of former Roanoke City vocational education students.
3. Create a procedure for compiling an annual follow-up report for vocational education in the Roanoke City Public Schools.
4. Reveal the degree to which vocational education in Roanoke City is providing qualified "manpower" to support our local labor market needs.
5. Take the results of the study and provide the necessary adjustments in our vocational programs to make them more effective.
6. Insure that supportive data will be used by the school system and community in future decisions involving vocational education specifically and education in general.

C. Review of Literature

It was felt that a review of the literature related to research projects of this nature and also a look at books, periodicals, and manuals related to the information of this type would be helpful.

The Seventh Annual Evaluation Report, December 1976, of the Virginia State Advisory Council on Vocational Education cited "poor follow-up activities of graduates," as one of its areas of concern for secondary schools. Listed in the same publication is the recommendation that the State Board of Education take steps to improve this image of vocational

education for various individuals such as students, school administrators, and parents.

This investigation is an effort on the part of the Roanoke City Public Schools to take the "first step" toward overcoming these problems as set forth by the State Advisory Council. For instance, the follow-up study of students has and will continue to provide a closer look at the problems for students as related to making the adjustment from school to work situations. Also it will help in the evaluation of the curriculum in terms of its reality as related to on-the-job situations.

The Virginia State Advisory Council on Vocational Education has also put forth the objective that: "By June 30, 1980, at least 70 percent of secondary students available for employment who complete occupational programs or leave school prior to completion with a marketable skill will be employed in a field for which they are trained or in a related field as verified by the annual follow-up survey system." The program described herein furthers that objective by making it a part of the local school district's effort to find out not only about former students, but also about the feelings of their employers. This school system is pledged to an objective similar to that of the State Advisory Council and it is felt that this project furthers that aim.

Virginia Vocational Education Follow-Up Former Students Responses, 1974-75, which was prepared by the State Divisions of Vocational Education and Educational Research in cooperation with Virginia Polytechnic Institute and State University, states the following facts about students who completed vocational programs throughout the state in 1974-75:

* 52.7% were employed full-time
* 5.8% were employed part-time
* 21.0% were continuing higher education
* 4.1% were in military service
* 13.2% were unemployed looking for a job
* 3.2% were classified in other status

The same report shows that a majority of former students indicated that they use the knowledge and skills received from vocational programs. In fact, it shows a very high degree of relationship between the knowledge and skills learned in vocational programs and their usefullness on the job. It ranged from 92.1% in Non-Farm Agriculture to 83.4% in both Business and Distributive Education.

Perceptions and attitudes of former students toward their instructors, placement services, tools, equipment, and facilities are also shown in the above mentioned report. It shows that the majority of former students felt that their teachers were competent, conditions of shops and labs were good, and tools and equipment were generally good. A somewhat lower rating was given to information about careers and on the availability of job openings. Information given to students regarding job openings was given the lowest rating by former students. Fair or poor ratings were given to all vocational services in this regard. It ranged from a low of 67% fair or poor rating for Agricultural Production to 52.8% fair to poor rating for Distributive Education.

Burks, in a 1975 study entitled, Racial Differences Between Roanoke City Vocational Students Attitudes Toward the World of Work, indicated that the program at the technical center was effective in assisting the students in the development of positive attitudes toward the world of work. The conclusion of this report is that the program is filling a need for the students in this vital area of study.

A project undertaken by Williams in 1975 revealed that a majority of students at Jefferson Senior High School who has been enrolled in secondary health careers education program felt prepared for work after completing the high school's program of instruction. However, it was found that a large portion of the former students saw a need for closer relationship

between the school and the employer. Former students in this program felt strongly about the need for the school to provide an opportunity for the student to spend more time in the hospital actually working with the professionals, learning and practicing skills.

Steptoe reports in the 1975 Annual Descriptive Report for Home Economics Education in the Roanoke City Public Schools, that employers are demanding more and more employees with average or above average ability and favorable work attitudes. Students have negative attitudes when they recognize that they are poorly prepared academically. They need to develop a feeling of achievement and satisfaction to become happier workers. One student, for instance, was not accepted for a job because the employer readily recognized his insecurity, exhibited by his difficulty in filling out an application form. Another student- worker was dismissed because of his inability to read the employer's sixty days probationary period evaluation. Another student-worker walked off the job because he did not communicate with his co-workers and his supervisor.

Harrison, (1976) in her study in Louisiana, found that job acquiring skills had not been adequately covered in the curriculum and that a relevant curriculum motivates students to action. Smith (1976) found that Indiana students who had cooperative work experience had success with obtaining employment after graduation. More graduates of programs with cooperative work experience were employed than were graduates of in-school programs.

D. Basic Assumptions

1. That the majority of former students are either employed or are undertaking post-secondary studies in a field related to their vocational program in high school.

2. That a majority of former students and their employers are satisfied with the instructional program.

E. Definition of Terms

For the purpose of this study, the following terms are defined in order to provide clarification:

1. Former Students - those persons who completed "direct entry" (defined below) vocational education programs in 1975-76.
2. Direct entry vocational education programs - those which provide instruction in knowledge and skills for a vocation as opposed to career orientation and exploration experiences.
3. Vocational programs - programs of instruction in Business & Office Education, Distributive Education, Occupational Home Economics, and Trade and Industrial Education, and Agricultural Education.
4. Agricultural Education Occupational Programs - refer to programs defined by the Virginia State Department of Education as being occupational in nature. U. S. Office of Education Codes 010100-019900.
5. Business & Office Education - refers to those secondary school programs identified by the Virginia State Department of Education as Business Education Occupational Programs including: accounting and computing occupations; business data processing occupations; filing, office machines, general clerical occupations; reprographics; also stenographic, secretarial and related occupations; typing and related occupations. U. S. Office of Education Codes 140100 - 140900.
6. Distributive Education - refers to those secondary school programs identified by the Virginia State Department of Education as Distributive

Education Occupational Programs including Cooperative Distributive Education, grades 11 & 12, and Fashion Merchandising. U. S. Office of Education Codes 040100 - 049900.

7. Occupational Home Economics - programs defined by the Virginia State Department of Education as preparing secondary students for employment. Particularly for this report it includes only food service and clothing service occupations. U. S. Office of Education Codes 090202, 090203.

8. Trade & Industrial Education - refers to occupational preparation programs as defined by the Virginia State Department of Education. Specifically, for the Roanoke City Public Schools, this includes Air Conditioning and Refrigeration; Auto Mechanics; Bricklaying; Cabinetmaking and Carpentry; Cosmetology; Electronics; Health Assistant Cluster; Industrial Cooperative Training; Machine Shop; Printing; Welding; and T & I Education for the Handicapped. U. S. Office of Education Codes 170100, 170302, 171004, 171001, 172602, 171500, 070303, 172300, 171900, 172300.

9. Employers - those business or industrial establishments or proprietorships which employ former students.

10. State - refers to the Virginia State Department of Education, Division of Vocational Education.

F. Limitations of Study

This study was limited to the 381 former secondary school students who had completed direct entry vocational education programs in the school year 1975-76. It was also limited by the fact it is a One Shot Case Study without a control group nor any baseline data. The findings of this study cannot be attributed to the vocational education program since other causative factors could not be controlled. It can only be assumed that the program influenced the findings.

G. Organization of Report

Chapter I has presented the problem, the objectives of the study, a review of related literature, the basic assumptions, the definition of terms and concluded with the limitations of this study.

Chapter II will include the guidelines used to identify the population to be surveyed, the design of the study, how the instrument was developed, the procedures used to collect the data and what statistical methods were used to analyze the data.

Chapter III will present an analysis of data collected and the findings.

Chapter IV will draw conclusions from the study and make recommendations.

The report will conclude with a bibliography and appendix having the instruments used in the data gathering procedure.

CHAPTER II

RESEARCH METHODOLOGY

A. Procedure in Conducting the Research

The population in this study is devided into two groups. Students who compieted a direct entry vocational education program during the 1975-76 school year comprised the "former student" population group. The other population group was made up of "employers" of the "former students" described above.

The "former student" population used in the study was the total target population. The "employer" group was confined to employers of those students who were working in an occupation which was corespondent to the vocational education program which the student had completed in high school. This was contained to "employers" who could be located from information supplied by "former students."

Data for this study was collected by use of a "closed-form" survey questionnaire which was sent to each "former student" and to "employers". The questionnaires were designed to be ones of check reply. Some open-ended questions were included so that freedom of expression could be allowed to respondents.

The questionnaire was formulated with reference to (1) the objectives of the study, (2) the objectives of vocational education, (3) instruments cited in the literature review, and (4) advice and assistance from the project evaluator.

The initial mailing was made to "former students" by the principal investigator. Included in the initial mailing was a letter (see Appendix A) stating the reasons for the survey and the "Former Student Survey" form (see Appendix B) along with a self-addressed, stamped envelope for return

purposes.

A second mailing was done approximately two weeks after the initial mailing to those "former students" who had not responded to the initial request. The second mailing contained a second letter (see Appendix C) requesting response and another "Former Student Survey" form and self-addressed, stamped envelope for return purposes.

Telephone calls were made to "former students" beginning approximately two weeks after the second mailing was completed requesting that the student return the questionnaire.

When the completed "Former Student Survey" forms were received by the principal investigator, a determination was made regarding wheather or not a questionnaire should be sent to his or her employer. Criteria for selection was (1) that a clear address for the employer be available and (2) that the employer represented a field of employment which was related to the vocational program completed by the former student.

Employers were sent a letter (see Appendix D) soliciting their assistance in the survey. A "Confidential Employer Survey" (see Appendix E) form was included in the letter to employers along with a self-addressed, stamped envelope for return to the investigator. No follow-up letters or calls were made to employers after the initial mailing.

The data collected from both "former students" and "employers" were processed by personnel from the school system's Department of Research and Data Processing. A tabulation was made for the response to each question on both the "student" and "employer" form (see Appendix B and Appendix E) except item number 7 on each form which proved to contain insufficient data for processing.

B. Population and Sample

One segment of the population in the study consisted of 381 students

who completed direct entry vocational education programs in the school year 1975-76. The other population segment of the study was made up of employers of former students.

A total of 195 former students or 51 % responded to the questionnaire. Response from employers was at a rate of 75 %, in that 44 of the employers out of 59 responded to the survey.

C. Design

In part, this study is descriptive in that the characteristics and attitudes of students previously participating in a vocational educational program are described. And for those students who are now employed -- a sub-set of the total population of students who have undergone vocational training, this study is an after-the-fact quasi-experimental design in which two different kinds of observations, student and employer, are described and differences in the relative frequencies are assessed for statistical significance. The after-the-fact aspect of the design is derived from the fact that the design was imposed after the "experimental treatment", or participation in a vocational educational program, had occurred. The quasi-experimental aspect of the study stems from the fact that no controls were established or delineated other than participation in a vocational training program and the fact of subsequent employment for some students.

The absence of controls in this study means that the findings of this study can not be generalized as regards other similar groups without additional replication or similar studies being conducted. Also, cause and effect generalizations must be guardedly set forth.

D. Data and Instrumentation

The instruments used in this study were follow-up survey questionnaires.

These questionnaires (see Appendix B and Appendix E) were developed after consulting references cited in the literature review and the project evaluator. The objectives of this study and of the vocational education program provided guidelines for the items used in the questionnaire.

After the instruments were developed, the "Former Student Survey" was "field tested" by former vocational students who had been enrolled in vocational programs. The instrument was then evaluated and changed accordingly by the principal investigator and the project evaluator. Both the "Former Student Survey" and the "Confidential Employer Survey" were reviewed by selected principals, teachers, and supervisors in the Roanoke City Public Schools. Unclear questions were restated or deleted and the redesigned questionnaire was reproduced and readied for mailing.

Pre-addressed and stamped envelopes were printed to include with the questionnaire for return. A cover letter was written (see Appendix A and Appendix C) to be included in the mailing.

E. Statistical Analysis and Treatment of Data

The nominal data was analyzed by a non-parametric chi square test. The following nine null hypotheses were tested with the alpha level set at the .05 level of statistical significance:

1. The perceptions of former vocational students and present employers of those students do not differ significantly as regards the on-the-job value of vocational training in imparting jobs skills.

2. The perceptions of former vocational students and present employers of those students do not differ significantly as regards the on-the-job value of vocational training concerning use of tools and equipment on the job.

3. The perceptions of former vocational students and present employers of those students do not differ significantly as regards the on-the-job value of vocational training concerning care of materials, supplies and work areas on the job.

4. The perceptions of former vocational students and present employers of those students do not differ significantly as regards the on-the-job value of vocational training concerning safety habits on the job.

5. The perceptions of former vocational students and present employers of those students do not differ significantly as regards the on-the-job value of vocational training concerning readiness for acquiring new skills on the job.

6. The perceptions of former vocational students and present employers of those students do not differ significantly as regards the on-the-job value of vocational training concerning quality of work done on the job.

7. The perceptions of former vocational students and present employers of those students do not differ significantly as regards the on-the-job value of vocational training concerning the ability to get along with people on the job.

8. The perceptions of former vocational students and present employers of those students do not differ significantly as regards the on-the-job value of vocational training concerning initiative used on the job.

9. The perceptions of former vocational students and present employers of those students do not differ significantly as regards the on-the-job value of vocational training concerning quantity of work done on the job.

F. Chi Square Statistical Analysis

Question #5 - Assessment by Employers and Students of the value of Vocational Training as related to practices followed in Business and Industry.

Statistically Significant Comparisons

	Employer Questionnaire	Student Questionnaire
1. Job skills learned in school	Item A	Item C
2. Use of tools and equipment	Item C	Item D
3. Care of materials, supplies and work areas	Item D	Item D
4. Safety habits	Item G	Item L

Statistically Non-Significant Comparisons

	Employer Questionnaire	Student Questionnaire
1. Readiness for acquiring new skills on the job	Item B	Item E
2. Quality of work done	Item F	Item F
3. Ability to get along with people	Item J	Item G
4. Initiative used on job	Item I	Item H
5. Quantity of work done	Item E	Item I

Analysis: Four of nine chi squares involving employer-student comparisons were statistically significant at the .05 level. Five of nine employer-student comparisons did not differ significantly. However, the differences for both the significant and non-significant comparisons exhibited the same kind of trend, with employers responding in a more positive manner than students did.

In making the comparisons, the kinds of responses on a five-point scale that employers made ranged from "excellent", "good", "fair", "poor", to "none". That parallel student responses ranged from "very much", "much", "some", "little", to "none". The responses were grouped in terms of two kinds of categories. For employers "excellent" and "good" were grouped together. For students the responses of "very much" and "much" were grouped together so that comparisons could be made with the employer grouping of "excellent" and "good". And for employers the responses of "fair", "poor", and "none" were grouped together so that a comparison could be made with the like grouping of student responses of "some", "little", and "none".

In comparing the employer grouping of "excellent" and "good" with the student grouping of "very much" and "much", one notes that the employers were in every case more positive than the students as regards the benefit of vocational education. Conversely, in the employer grouping of "fair", "poor", and "none" compared to the student grouping of "some", "little",

and "none", the student response for the student grouping was higher than the employer response for the employer grouping, meaning that students were less positive than employers as regards the benefits of vocational education.

Tables of the frequencies of student and employer responses and chi square values for the above-mentioned nine items are presented below.

G. Statistically Significant Comparisons

FORMER STUDENTS SURVEY AND CONFIDENTIAL EMPLOYERS SURVEY

1. Job skills learned in school

*STUDENT RATINGS	EMPLOYER RATINGS	STUDENTS	EMPLOYERS	
Very Much Much	Excellent Good	18	31	49
Some Little None	Fair Poor None	17	4	21
		35	35	70

*Student Ratings have a parallel or equivalent form in the adjacent Employer Ratings.

Chi square = 11.52, statistically significant for a two-tailed test at the .05 level with degrees of freedom = 1

FORMER STUDENTS SURVEY AND CONFIDENTIAL EMPLOYERS SURVEY

2. Use of Tools and Equipment

*STUDENT RATINGS	STUDENTS	EMPLOYERS	
Very Much to Excellent Much to Good	16	34	50
Some to Fair Little to Poor None to None	21	3	24
	37	37	74

* Student Ratings have a parallel or equivalent form in the adjacent Employer Ratings.

Chi square = 19.98, statistically significant for a two-tailed test at the .05 level with degrees of freedom = 1.

FORMER STUDENTS SURVEY AND CONFIDENTIAL EMPLOYERS SURVEY

3. Care of Materials, Supplies and Work Area.

*STUDENT RATINGS	STUDENTS	EMPLOYERS	
Very Much to Excellent Much to Good	16	34	50
Some to Fair Little to Poor None to None	22	24	26
	38	38	76

*Student Ratings have a parallel or equivalent form in the adjacent Employer Ratings.

Chi square = 18.94, statistically significant for a two-tailed test at the .05 level with degrees of freedom = 1.

FORMER STUDENTS SURVEY AND CONFIDENTIAL EMPLOYERS SURVEY

4. Knowing About Work Safety.

*STUDENT RATINGS	STUDENTS	EMPLOYERS	
Very Much to Excellent Much to Good	27	34	61
Some to Fair Little to Poor None to None	10	23	13
	37	37	74

*Student Ratings have a parallel or equivalent form in the adjacent Employer Ratings.

Chi square = 3.94, statistically significant for a two-tailed test at the .05 level with degrees of freedom = 1.

H. Statistically Non-Significant Comparisons

FORMER STUDENTS SURVEY AND CONFIDENTIAL EMPLOYERS SURVEY

1. Readiness for Acquiring New Skills on the Job.

*STUDENT RATINGS	STUDENTS	EMPLOYERS	
Very Much to Excellent Much to Good	24	30	54
Some to Fair Little to Poor None to None	13	7	20
	37	37	74

*Student Ratings have a parallel or equivalent form in the adjacent Employer Ratings.

Chi square = 2.48, not statistically significant for a two-tailed test at the .05 level with degrees of freedom= 1.

FORMER STUDENTS SURVEY AND CONFIDENTIAL EMPLOYERS SURVEY

2. Quality of Work Accomplished.

*STUDENT RATINGS	STUDENTS	EMPLOYERS	
Very Much to Excellent Much to Good	30	33	63
Some to Fair Little to Poor None to None	6	3	9
	36	36	72

*Student Ratings have a parallel or equivalent form in the adjacent Employer Ratings.

Chi square = 1.16, not statistically significant for a two-tailed test at the .05 level with degrees of freedom = 1.

FORMER STUDENTS SURVEY AND CONFIDENTIAL EMPLOYERS SURVEY

3. Ability to Get Along With People.

*STUDENT RATINGS	STUDENTS	EMPLOYERS	
Very Much to Excellent Much to Good	30	35	65
Some to Fair Little to Poor None to None	7	2	9
	37	37	74

*Student Ratings have a parallel of equivalent form in the adjacent Employer Ratings.

Chi square = 3.65, not statistically significant for a two-tailed test at the .05 level with degrees of freedom = 1.

FORMER STUDENTS SURVEY AND CONFIDENTIAL EMPLOYERS SURVEY

4. Initiative Used on the Job.

*STUDENT RATINGS	STUDENTS	EMPLOYERS	
Very Much to Excellent Much to Good	24	27	51
Some to Fair Little to Poor None to None	13	10	23
	37	37	74

*Student Ratings have a parallel or equivalent form in the adjacent Employer Ratings.

Chi square = 0.53, not statistically significant for a two-tailed test at the .05 level with degrees of freedom = 1.

FORMER STUDENTS SURVEY AND CONFIDENTIAL EMPLOYERS SURVEY

5. Quantity of Work Done.

*STUDENT RATINGS	STUDENTS	EMPLOYERS	
Very Much to Excellent Much to Good	26	32	58
Some to Fair Little to Poor None to None	12	26	18
	38	38	76

*Student Ratings have a parallel or equivalent form in the adjacent Employer Ratings.

Chi square = 2.62, not statistically significant for a two-tailed test at the .05 level with degrees of freedom = 1.

CHAPTER III

ANALYSIS AND FINDINGS

EMPLOYMENT OF STUDENTS COMPLETING VOCATIONAL PROGRAMS IN 1975-76

A. Overall Employment Status of Former Students.

Each former student was asked to state his employment status in terms of whether he or she had a full-time job, part-time job, no job, or was serving on active duty in the military service.

Out of the 193 former students who responded to the survey, 116 or 60% were employed either full-time, part-time or in the military service. Sixty-nine or 36% were employed on a full-time basis, while thirty-seven or 19% were holding part-time employment, and ten former students or 5% were serving with the armed forces.

Seventy-seven of the former students who completed the survey, or 40% of the total, were unemployed. However, fifty of those students or 26% were not available for employment for a variety of reasons. Those reasons included enrollment in post-secondary schools (20%), health reasons (2%), marriage and family (3%) and four percent (4%) who did not want jobs for other reasons.

The table below shows this breakdown more graphically:

OVERALL EMPLOYMENT STATUS OF VOCATIONAL STUDENTS COMPLETING IN 1975-76

Vocational Service	EMPLOYMENT STATUS					Total
	Employed Full-Time	Employed Part-Time	Military Service	Not Available For Employment	Unemployed	
Business Education	25	22	----	19	8	74
Distributive Education	11	5	2	11	1	30
Occupational Home Economics	1	1	----	4	6	12
Trade & Industrial Education	32	9	8	16	12	77
Total	69 (36%)	37 (19%)	10 (5%)	50 (26%)	27 (14%)	193 (100%)

The chart on the previous page includes former students who are employed in any type of occupation without regard to the relationship of that job to the vocational training received by that student in high school. Unemployed refers only to those available for employment who were without employment at the time of the survey.

B. Employment Status of Former Students as Related to the Vocational Training Program Completed in High School.

A closer look at the data related to employment reveals that fifty-nine percent (59%) of the former students were employed in a field directly related to the vocational training received in high school. Thirty percent (30%) of those same students were employed in occupations which were unrelated to their high school vocational studies.

The job relationship to voc tional course completion is unknown for ten percent (10%) of the former students. See chart below:

EMPLOYMENT STATUS AS RELATED TO VOCATIONAL PROGRAM COMPLETED IN 1975-76

Vocational Service	Employment				Employment Relationship to Vocational Course		
	Full-Time	Part-Time	Military	Total	Related	Not Related	Unknown
Business Education	25	22	-------	47	34	12	1
Distributive Education	11	5	2	18	11	5	2
Occupational Home Economics	1	1	-------	2	2	------	------
Trade & Industrial	32	9	8	49	22	18	9
Total	69 (59%)	37 (32%)	10 (9%)	116(100%)	69 (59%)	35 (30%)	12 (10%)

EDUCATIONAL STATUS OF STUDENTS COMPLETING VOCATIONAL PROGRAMS IN 1975-76

A. Overall post-secondary status of former students.

The question put to former students was: "Are you enrolled in any school or classes: full-time; part-time; not enrolled?" Response indicates that a relatively high number of students (37%) were enrolled in post-secondary educational programs. Sixty (60) out of the one hundred ninety-three (193) graduates or thirty-one percent (31%) were enrolled full-time in a post-secondary program. Eleven or six percent (6%) were enrolled on a part-time basis. Business Education led with forty-nine percent (49%) of the students who completed in 1975-76 being enrolled in post-secondary programs. See chart below for more details:

EDUCATIONAL STATUS OF VOCATIONAL STUDENTS COMPLETING IN 1975-76

Vocational Service	Full Time	Part Time	Not Enrolled	Unknown	Total
Business Education	30	6	38	-----	74
Distributive Education	9	------	19	2	30
Occupational Home Economics	4	1	7	-----	12
Trade & Industrial	17	4	53	3	77
TOTAL	60 (31%)	11 (6%)	117 (60%)	5 (3%)	193 (100%)

B. Post-secondary educational programs as related to vocational course completed in high school.

An analysis of the students who completed high school vocational education courses in 1975-76 and were enrolled in post-secondary studies at the time of the survey completion shows that fifty-nine percent (59%) of those students were undertaking post-secondary studies which were directly related to their high school vocational programs.

Twenty-six percent (26%) of these former students were enrolled in post-secondary programs which had no direct relationship to their high school vocational program.

POST-SECONDARY EDUCATIONAL STATUS AS RELATED TO SECONDARY VOCATIONAL EDUCATION PROGRAM COMPLETED IN 1975-76

Vocational Service	Related	Not Related	Unknown	Total
Business Education	28	7	-------	35
Distributive Education	3	5	3	11
Occupational Home Economics	--------	3	2	5
Trade & Industrial	12	4	6	22
Total	43 (59%)	19 (26%)	11 (15%)	73 (100%)

Includes both full-time and part-time former vocational students who are enrolled in post-secondary programs. Related means that they are enrolled in a post-secondary program which is directly related to the secondary vocational program which they completed.

A determination of whether a relationship existed between post-secondary program of study and the vocational program completed in high school was made by the investigator based on the name of school and program or class given by the former student.

RATING OF VOCATIONAL PROGRAM BY STUDENTS COMPLETING IN 1975-76

A. General rating for vocational programs by former students.

When asked to grade the vocational program which they completed in high school, ninety-two percent (92%) of the students responded while eight percent (8%) gave no response.

This rating is shown below. It is based on the question to former students: "If you were going to give a grade to the vocational program which you took in high school, how would you grade it? (Grade just like a school grade, as if you were a teacher. A is the best grade, F the worst.")

OVERALL RATING OF VOCATIONAL PROGRAMS BY STUDENTS COMPLETING IN 1975-76

VOCATIONAL SERVICE	RATING GIVEN BY FORMER STUDENTS					No Response	TOTAL
	A	B	C	D	F		
Business Education	25	33	11	2	-----	3	74
Distributive Education	11	13	2	1	-----	3	30
Occupational Home Ec.	7	4	1	-----	-----	----------	12
Trade & Industrial	24	29	12	3	-----	9	77
TOTAL	67 (35%)	79 (41%)	26 (13%)	6 (3%)	-----	15 (8%)	193 (100%)

B. Specific rating of vocational programs by former students.

Twelve specific areas of instruction were rated by former students. These ranged from knowing how to apply for a job to knowing about work safety. Former students were asked to rate each of these items in terms of how much help they had been to them on their jobs. Ratings ranged from very much to none.

The majority of students felt that all of the instructional items were of help to them. Seventy percent (70%) of the former students gave a rating of either much or very much. Specific items rated by former students are shown on the next page along with the number and percent of responses given to each area.

SPECIFIC RATING OF VOCATIONAL PROGRAMS BY FORMER STUDENTS COMPLETING IN 1975-76

ALL VOCATIONAL PROGRAMS

THINGS LEARNED IN VOCATIONAL CLASS	RATING GIVEN BY FORMER STUDENTS					Total
	Very Much	Much	Some	Little	None	
A. Knowing how to apply for a job.	55	28	16	9	8	116
B. Having an understanding of what goes on in this kind of job.	36	33	26	8	13	116
C. Using what I learned in school to do the jobs given to me at work.	40	25	30	7	14	116
D. Knowing how to use machines, tools, and equipment on the job.	40	26	25	8	17	116
E. Being able to learn new things on the job.	42	36	28	7	3	116
F. Knowing how to do a good job.	63	35	13	2	3	116
G. Getting along with people.	65	25	16	7	3	116
H. Knowing how to ask questions which helped me on the job.	46	31	28	5	4	114
I. Knowing how to do a job quickly.	40	42	23	7	4	116
J. Knowing how to follow directions.	58	42	9	3	4	116
K. Understanding the rules at work.	47	42	16	6	5	116
L. Knowing about work safety.	54	28	15	8	11	116
Total	586 (42%)	393 (28%)	245 (18%)	77 (6%)	89 (6%)	1390 (100%)

C. Rating by Employers of Vocational Student Completion in 1975-76.

Employers generally gave a favorable report on those students employed by their firms. In fact, 25% rated their employees who had completed vocational education programs in 1975-76 with an Excellent rating, while 52.5% gave a Good rating. The rating scale ranged from Excellent to None. Specifically, it called for employers to rate former vocational students who were in their employ, or had been in their employ at one time, with the rating of either Excellent, Good, Fair, Poor or None. As indicated previously, the majority (77.5%) gave rating of either Excellent or Good. A Fair rating was given by 12.5% of employers while 2.5% indicated Poor performance. No response was given to this question by employers.

This rating by employers of persons who completed vocational education in the school year 1975-76 is shown graphically below:

OVERALL RATING BY EMPLOYERS

OF

PERSONS COMPLETING VOCATIONAL PROGRAMS IN 1975-76

Excellent	Good	Fair	Poor	None	No Response
10 (25%)	21 (52.5%)	5 (12.5%)	1 (2.5%)	------	3 (7.5%)

Employers were asked to make judgements related to the degree of efficiency on the same scale in relation to twelve aspects of employment. These twelve areas along with the rating given by employers is shown on the next page.

SPECIFIC RATINGS BY EMPLOYERS
OF
PERSONS COMPLETING VOCATIONAL PROGRAMS IN 1975-76

Aspect of Employment	EXCELLENT	GOOD	FAIR	POOR	NONE
Job Skills Learned In High School	7 (18%)	27 (21%)	3 (8%)	-----	1 (3%)
Readiness for Acquiring New Skills on the Job	13 (34%)	18 (47%)	6 (16%)	1 (3%)	------
Use of Tools and Equipment	11 (29%)	24 (63%)	3 (8%)	-----	------
Care of Materials, Supplies & Work Area	11 (29%)	22 (58%)	5 (13%)	-----	------
Amount of Work Accomplished	9 (24%)	24 (63%)	5 (13%)	-----	------
Quality of Work Accomplished	13 (34%)	20 (53%)	4 (11%)	-----	1 (3%)
Safety Habits	14 (37%)	22 (58%)	2 (5%)	-----	------
Attitude and Enthusiasm Toward Work	16 (42%)	14 (37%)	6 (16%)	2 (5%)	------
Initiative Used on the Job	13 (34%)	14 (37%)	9 (24%)	2 (5%)	------
Ability to Get Along With Others	19 (50%)	17 (45%)	2 (5%)	-----	------
Regularity and Punctuality in Reporting to Work	18 (48%)	16 (42%)	2 (5%)	2 (5%)	------
Understanding How His or Her Job Fits Into the Profit Picture or Other Objective of the Employer	8 (21%)	18 (45%)	13 (34%)	-----	------

It appears that employers are most generous with their ratings of persons who completed vocational education programs in 1975-76 in the areas of (1) having the ability to get along with others on the job, and (2) as being regular and punctual in reporting to work. Half or very close to half of the employers gave an Excellent rating to those two aspects of employment. A more detailed analysis of the employer responses to these twelve questions will be given in the Conclusions and Recommendations section of this report.

No clear pattern of response emerged from the question put to employers in regard to their rating of those aspects of training for employment which are most important.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

It is concluded from this study that the two basic assumptions are upheld. The first basic assumption was that the majority of former students were either employed or undertaking post-secondary studies, in a field related to the vocational program which they had completed in high school. Indeed, well over half of the students (59%) are employed in a field for which they received instruction in high school. In addition, out of those students enrolled in post-secondary education, 59% were enrolled in programs which were directly related to the vocational education program which they took in high school.

Basic assumption two projected that a majority of former students and their employers would be satisfied with the instructional program. This was proven to be the case. In fact, a sizeable majority (76%) of the former students rated the program at above the average level. Employers were also high (77.5% above average) in their rating of the instructional program as viewed by those things observed in their current employees who had completed vocational education programs in 1975-76.

Another conclusion drawn from this report is that a large number of vocational graduates enroll in post-secondary education programs than is normally expected. The fact that 31% of the 1975-76 graduates who completed direct entry vocational education programs were enrolled full-time in post-secondary programs with another 6% of the same group enrolled part-time in post-secondary education programs highlights this finding.

Recommendations are that this study be undertaken by the Roanoke City Public Schools again during 1977-78 for those students who complete direct entry vocational education programs during the 1976-77 school year. This

research should be undertaken with the current project as a base from which to build. Additional review of the literature should be undertaken in order to locate similar research.

APPENDIX

Roanoke City Public Schools
Division for Educational Programs
Department of Vocational and Adult Education
P. O. Box 13145, Roanoke, Virginia 24031

40 Douglas Avenue, N.W.
(703)981-2661

March 22, 1977

Ms. Debbie Harrington
611 Fairfax Avenue
Roanoke VA 24016

Dear Ms. Harrington:

Our records indicate that you completed a course in the vocational education program offered by the Roanoke City Public Schools.

We are now in the process of asking former students like yourself to help us rate the effectiveness of our vocational education programs. We hope that you will help us in this effort by answering the questions on the enclosed sheet.

A stamped, self-addressed envelope is enclosed for your convenience. We appreciate your help.

Sincerely yours,

Lloyd W. Enoch

Lloyd W. Enoch, Director
Vocational and Adult Education

LWE/dm

Enclosures

DEPARTMENT OF VOCATIONAL AND ADULT EDUCATION
Roanoke City Public Schools
P. O. Box 13145 • Roanoke, Virginia 24031

APPENDIX B

FORMER STUDENT SURVEY

Note to Former Student: All comments to these questions will be kept in confidence. No names, comments, or other data related to individuals, companies, teachers, or other involved parties will be released without written permission.

Former Student's Name_____ Address_____ Vocational Course Taken in High School_____

1. Do you now have a: _____full-time job; _____part-time job; _____no job; _____on active military service. (CHECK ONE)

2. If employed, please list: _____
(Employer) (Employer's Address) (Immediate Supervisor) (Kind of Work You Do)

3. Are you enrolled in any school or classes: _____full-time; _____part-time; _____not enrolled. (CHECK ONE)

If enrolled, complete: _____ _____
(Name of School) (Program or Class)

4. If you were going to give a grade to the vocational program which you took in high school, how would you grade it? (Grade just like a school grade, as if you were the teacher. A is the best grade, F the worst).

_____A _____B _____C _____D _____(F) (CHECK ONE)

5. How much help was your high school vocational class to you on your job in the things listed below? (If you have no job, go to Question 8).

Please circle the number which applies to things learned in your high school vocational class:

Things Learned in Vocational Class	Very Much	Much	Some	Little	None
A. Knowing how to apply for a job.	1	2	3	4	5
B. Having an understanding of what goes on in this kind of job.	1	2	3	4	5
C. Using what I learned in school to do the jobs given to me at work.	1	2	3	4	5
D. Knowing how to use machines, tools, and equipment on the job.	1	2	3	4	5
E. Being able to learn new things on the job.	1	2	3	4	5
F. Knowing how to do a good job.	1	2	3	4	5
G. Getting along with people.	1	2	3	4	5
H. Knowing how to ask questions which helped me on the job.	1	2	3	4	5
I. Knowing how to do a job quickly.	1	2	3	4	5
J. Knowing how to follow directions.	1	2	3	4	5
K. Understanding the rules at work.	1	2	3	4	5
L. Knowing about work safety.	1	2	3	4	5

6. Of the things learned in your vocational class listed in Question 5, which do you feel are the most important and should be given the most emphasis in vocational classes in high school? (Please pick at least six important items.)

_____A _____B _____C _____D _____E _____F _____G _____H _____I _____J _____K _____L (PLEASE CHECK)

7. Other things which should be taught in vocational classes are: (Use reverse side if needed)

8. If you do not have a job, please tell us why. (Please check below)

_____Enrolled in school
_____Can't find job
_____Did not want job at this time
_____Can't find job that pays enough
_____Can't find job in my line of work
_____Temporarily laid off.
_____Health problems
_____Got married and raising a family
_____Others (Please list below)

9. Other comments: How do you feel about the vocational class which you took in high school? (Use reverse side if needed)

Return to: **Lloyd W. Enoch,** *Director of Vocational and Adult Education*
Roanoke City Public Schools
P. O. Box 13145
Roanoke, Virginia 24031 Telephone (703) 981-2661

Thank you for your cooperation and support of Vocational Education.

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APPENDIX C

Roanoke City Public Schools
Division for Educational Programs
Department of Vocational and Adult Education
P. O. Box 13145, Roanoke, Virginia 24031

40 Douglas Avenue, N.W.
(703)981-2661

April 13, 1977

Dear Former Student:

We recently sent you a questionnaire about the vocational course which you took while you were in high school.

We are sending you another form at this time. Please take a few minutes and complete this form and return it to us in the enclosed self-addressed envelope.

Your cooperation is appreciated.

Sincerely,

Lloyd W. Enoch

Lloyd W. Enoch, Director
Vocational and Adult Education

Enclosure

LWE/dm

APPENDIX D

Roanoke City Public Schools
Division for Educational Programs
Department of Vocational and Adult Education
P. O. Box 13145, Roanoke, Virginia 24031

40 Douglas Avenue, N.W.
(703)981-2661

April 28, 1977

Mr. Lee Gordon
Rudds
460 Salem Avenue
Roanoke, Virginia 24016

Dear Mr. Gordon:

The Roanoke City Public Schools is conducting a survey of the employers of persons who completed our Vocational Education program during the 1975-76 school year.

One of our former students has indicated that your are currently his or her employer. That former student is named on the enclosed form.

We would appreciate your completing a survey form indicating the effectiveness of this former student on the job in comparison to what he or she learned in our Vocational Education program.

We thank you in advance for your support in this effort. As indicated on the form, this is a confidential survey. No names, comments, or other data related to individuals, companies, teachers, or other involved parties will be released without written permission.

Sincerely,

Lloyd W. Enoch

Lloyd W. Enoch, Director
Vocational and Adult Education

LWE/dm

Enclosure

DEPARTMENT OF VOCATIONAL AND ADULT EDUCATION
Roanoke City Public Schools
P. O. Box 13145 • Roanoke, Virginia 24031

APPENDIX E

CONFIDENTIAL EMPLOYER SURVEY

Note to Employer: All comments and answers to these questions will be kept in confidence. No names, comments, or other data related to individuals, companies, teachers, or other involved parties will be released without written permission.

Individual's Name_____ Vocational Course Taken in High School_____

Does this individual work for you: _____full-time; _____part-time; _____no longer employed here.
(Even if no longer employed by your company, please complete the questions below.)

1. In what capacity are you related to the person named above: (PLEASE CHECK)

_____Employer; _____Supervisor; _____Former Employer or Supervisor; _____Other_____
(Please Write In)

2. What is the title of the job which this person was originally hired? _____
(Original Job Title)

3. If still in your employ, does this person hold the same job for which originally employed? _____YES _____NO
If no, please state title of job the person now holds and the reason for the job change.

_____ _____
(Current Job Title) (Reason for Change from Original Job Assignment to Current Job Assignment)

4. How would you rate the overall occupational preparedness of this person for employment when hired by your firm?

_____Excellent; _____Good; _____Fair; _____Poor _____None

5. Specifically, please rate this former vocational education student in terms of the following aspects of employment:

Aspect of Employment	Circle Number Below				
	Excellent	Good	Fair	Poor	None
A. Job skills learned while in high school.	1	2	3	4	5
B. Readiness for acquiring new skills on the job.	1	2	3	4	5
C. Use of tools and equipment.	1	2	3	4	5
D. Care of materials, supplies, and work area.	1	2	3	4	5
E. Amount of work accomplished.	1	2	3	4	5
F. Quality of work accomplished.	1	2	3	4	5
G. Safety habits.	1	2	3	4	5
H. Attitude and enthusiasm toward work.	1	2	3	4	5
I. Initiative used on the job.	1	2	3	4	5
J. Ability to get along with people.	1	2	3	4	5
K. Regularity and punctuality in reporting to work.	1	2	3	4	5
L. Understanding how his or her job fits into the profit picture or other objective of the employer.	1	2	3	4	5

6. Which of the things listed above are the most important for vocational instruction in high school? (Please pick at least six significant items.)

_____A_____B_____C_____D_____E_____F_____G_____H_____I_____J_____K_____L (Check those which apply)

7. Other aspects of employment not shown here which I feel are important are: (Please list below)

8. If this person is no longer employed by you, please tell us why. (Check below)

_____Enrolled in school
_____Quit for another job
_____Health problems
_____We cut the number of our employees
_____Did not need person with this ones training or skills any longer.
_____Person got married and is raising a family
_____Did not want this person any longer
_____Temporarily laid off
_____Others (Please list below)

9. Comments: Please tell

ABSTRACT

ABSTRACT

This report is a follow-up study of secondary school students who completed vocational education programs in the Roanoke City Public Schools during the 1975-76 school year. In addition, employers of the same groups of former students were asked to rate the effectiveness of vocational instruction as based on observation of those same students. Both former students and their employers were asked to rate the effectiveness of the instructional program in relation to twelve aspects of employment.

A questionnaire was sent to 381 persons who completed vocational programs in the 1975-76 school year with a 51% return. A similar questionnaire was sent to 59 employers of those students with a 68% return. The data collected was tabulated by machine and analyzed.

It was found that 59% of those former students who were employed were full-time employees in a field directly related to their secondary studies and that 59% of those former students enrolled in post-secondary education programs were enrolled in programs with direct relationships to secondary studies.

Both employers and former students gave high marks to the vocational education instructional program. Employers rated the program above average in 77.5% of the cases while students gave a somewhat lower rating with 70% at above the average level.

Thirty-six percent (36%) of the former students were employed full-time, nineteen percent (19%) were employed part-time, and five percent (5%) were in military service. Twenty-six percent (26%) were not available for employment for a variety of reasons, but the largest percentage (20%) of those former students not available for employment were enrolled in post-secondary education programs and therefore not available for employment.

A long-range (5 year) study was recommended with the herein described report as a basic building block.

BIBLIOGRAPHY

BIBLIOGRAPHY

Agnew, Barry K. Annual Planning Report, Planning District Five - Roanoke Consortium. Virginia Employment Commission, Roanoke, Virginia, 1976.

Burks, Beverly Wayne, Sr. Racial Differences Between Roanoke City Vocational Education Students Attitudes Toward the World of Work. Roanoke City Public Schools. Roanoke, Virginia, 1975.

Division of Vocational Education. Employment Status of 1974-75 Secondary Trade & Industrial Education and Health Completions in Virginia. State Department of Education, Richmond, Virginia, 1976.

Elson, Donald E. and O'Reilly, Patrick A. Virginia Vocational Education Follow-Up Former Student Responses, 1974-75. Division of Vocational and Technical Educaton, College of Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1976.

Harrison, Betty C. Effectiveness of Student Attitude and Student Learning In Job-Acquiring Skill Program. American Home Economics Association, Washington, D. C., 1976.

Home Economics Education. 1975 Annual Descriptive Report. Roanoke City Public Schools, Roanoke, Virginia, 1975.

Smith, Phyllis Cook. An Identification of Factors Relating Occupational Home Economics Training with Employment Patterns and Job Relatedness: A Follow-Up Study. American Home Economics Association, Washington, D. C., 1976.

Virginia State Advisory Council on Vocational Education. Seventh Annual Report, The Need: Education With a Marketable Skill. Blacksburg, Virginia, 1976.

Williams, Romona Perry. An Evaluation of the Health Careers Program at Jefferson Senior High School. Roanoke City Public Schools, Roanoke, Virginia, 1975.